

Remarks

Claims 1, 3, 4, 7, 13, 15-21, 25-35, 38-40, 45-46 and 51-52 are pending. New Claims 51-52 are added in this Amendment.

Claim 1 has been amended to recite an optical disk having a tracked data side on which data may be stored and an untracked non-data side that includes the pattern of reflective and non-reflective or magnetic and non-magnetic regions aligned circularly about the disk. Similar amendments have been made to Claims 13, 26 and 39. Support for these amendments may be found in U.S. patent application serial no. 10/347,074 incorporated by reference into the present application at paragraph 0015 of the Specification. See, for example: page 4, lines 5-9, and page 7, lines 8-14 in application serial no. 10/347,074.

Rejections Based On Satoh

Independent Claims 1, 13, 26 and 39 stand rejected under Section 102 as being anticipated by Satoh 5119363. Claim 1 as amended recites a method for controlling the speed of an optical disk by sensing a pattern formed on the untracked non-data side of the disk. In Satoh, by contrast, index marks 9 and 20 are formed on the tracked data side of the disk. Indeed, the index marks themselves in Satoh are tracks in the disk. See, for example, Satoh Figs. 5A, 5B, 9A and 9B and the accompanying text at column 4, lines 45-55 and column 6, lines 26-36. Satoh, therefore, does not teach the method of amended Claim 1.

The same analysis applies to Claims 13, 26 and 39. Claim 13 as amended recites a device for interacting with an optical disk having an untracked non-data side that includes a pattern of reflective and non-reflective regions aligned circularly about a rim of the disk. Claim 26 as amended recites a storage device that includes a means for sensing electromagnetic radiation from a pattern aligned circularly about a rim of a trackless non-data side of the media. Claim 39 is a programming counterpart to Claim 1 and recites similar limitations. As noted above, Satoh does not teach any kind of pattern for sensing disk speed on the trackless non-data side of his disk.

For these reasons, amended Claims 1, 13, 26 and 39 distinguish patentably over Satoh (or the combination of Satoh and Honda 20020191517) along with their respective dependent claims.

Applicants note also that there is no suggestion or motivation to combine Satoh and Honda. And, the combination of Satoh and Honda, even if properly motivated, would be inoperative to produce the intended results of either reference. In Satoh, the track region 7 (Fig. 2) of the optical disk to which data can be written has "groove-like guide tracks" (col. 4, line 15). Recording of data on the optical disk is accomplished by applying "a tiny spot of laser light beam, which is focused so that the diameter is less than 1 micrometer" on a desired location of the optical disk (col. 1, lines 12-15). The positioning of the optical head 28 (Fig. 5) relative to the optical disk 1 is accomplished by a tracking control that "is effected so as to follow the zigzag motion caused by the eccentricity of the guide tracks with the above-mentioned tiny spot focused on the groove-like track" (col. 1, lines 36-39). For example, "[t]he movement of the optical head 28 is performed with the tracking control of the optical head switched off, by counting the number of crossing tracks represented by a track crossing signal of a tracking error signal by means of a crossing track number counter 38" (col. 7, lines 43-48). Once the optical head is position such that it "faces the writing track, tracking control is effected" and "a laser light beam is applied to the optical disk 1 for effecting writing and reading" (col. 7, line 58 – col. 8, line 2). During the above operations, the optical disk is positioned according to Satoh in such a manner that the groove-like tracks are detectable by the optical disk drive.

When Honda's optical disk 10 (Fig. 1) is positioned for data recording with the substrate 12 adjacent the optical pickup of the disk drive, any grooves would be visible through the substrate 12, as is required for data read or write operations. However, when the optical disk drive of Honda operates to form visible markings on the optical disk 10, the optical disk is inverted in the disk drive such that the trackless non-data label surface side 22 is adjacent the optical pickup so that visible marks may be formed in the labeling layer 18. In this configuration, the grooves that are visible through the substrate 12 would not be visible from the label surface side 22; reflective layer 16 would block visibility of the grooves.

Without the ability to count and track the grooves, the disk drive of Satoh could not operate. Also for this reason, Satoh teaches away from the combination with Honda.

New Claims 51-52

New Claim 51 recites method that includes establishing a reference for radial positioning and controlling disk speed based on the act of sensing a reference pattern on the trackless non-data side of the disk. New Claim 52 adds the further limitations that: (1) the act of sensing the reference pattern comprises scanning the reference pattern with a first light and detecting light reflected from the pattern; and (2) the method also includes positioning a second light radially on the disk based on the act of establishing the reference.

Support for the radial positioning features recited in Claims 51 and 52 is found in application serial no. 10/347,074 incorporated by reference into the present application at paragraph 0015 of the Specification. Neither Satoh nor Honda give the least inkling that these two functions could or should both be performed by sensing the same reference pattern(s) in general, and specifically not a reference pattern (or patterns) on the trackless non-data side of the disk.

Respectfully submitted,

/Steven R. Ormiston/

Steven R. Ormiston
Attorney for Applicant
Registration No. 35,974
208.433.1991 x204